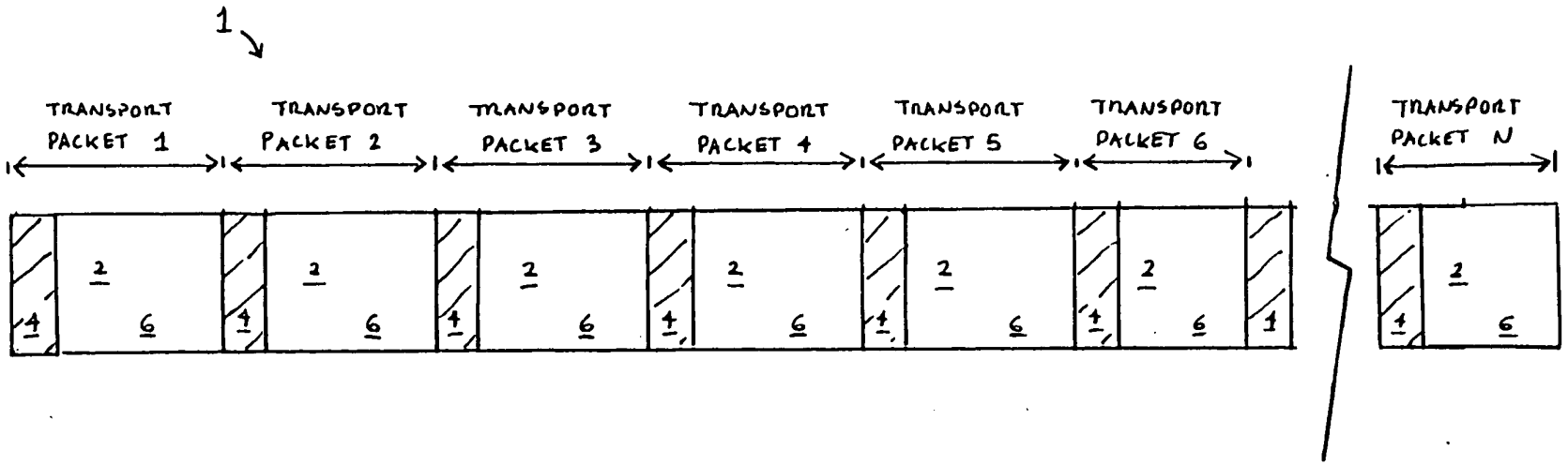
1
TRANSPORT PACKET 1
TRANSPORT PACKET 2
TRANSPORT PACKET 3
TRANSPORT PACKET 4
TRANSPORT PACKET 5
TRANSPORT PACKET 6
TRANSPORT PACKET N
4
2
6
1

FIGURE 1

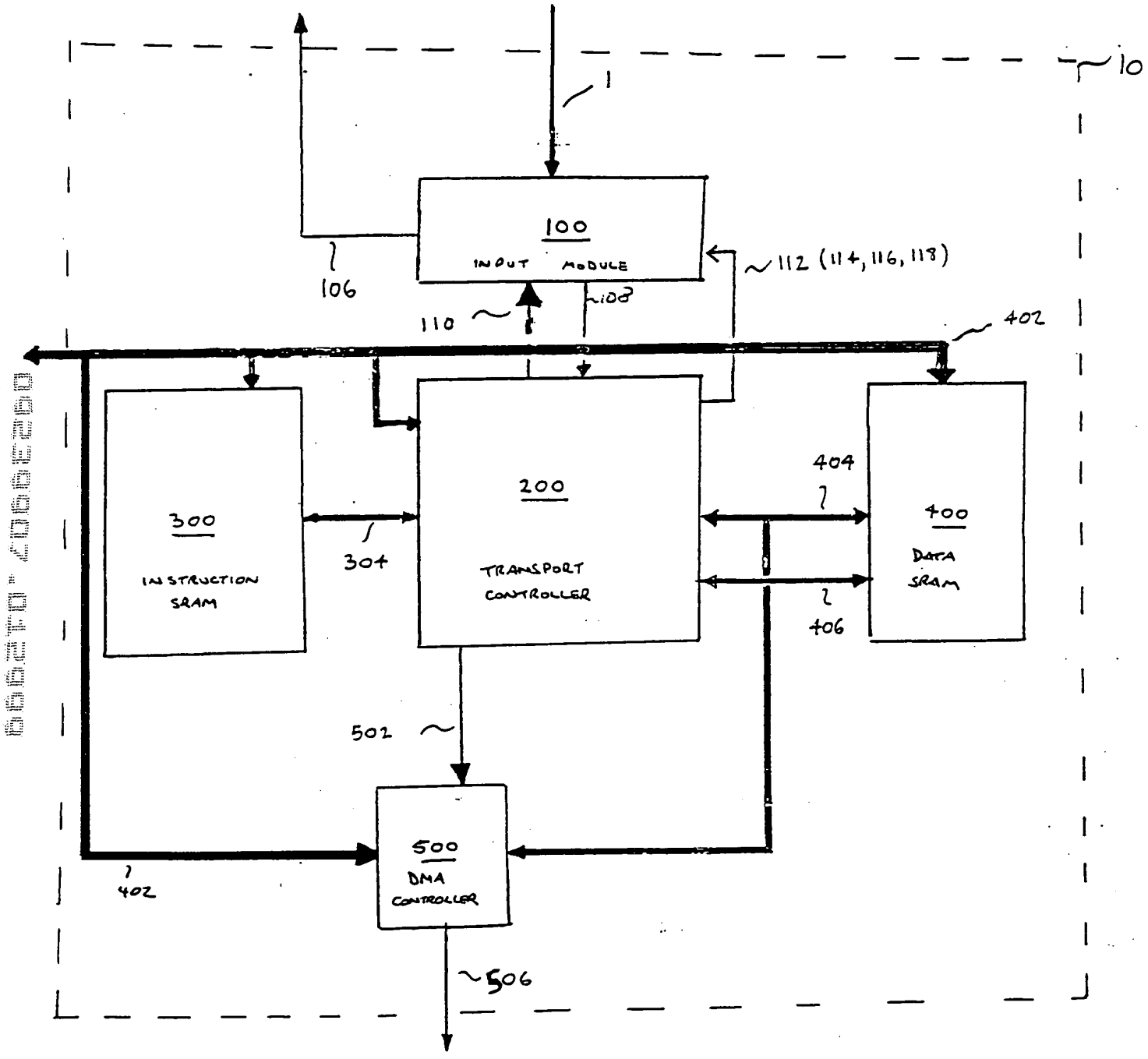
10
1
100
INPUT MODULE
106
112 (114, 116, 118)
110
108
402
300
INSTRUCTION SRAM
304
200
TRANSPORT CONTROLLER
404
400
DATA SRAM
406
502
500
DMA CONTROLLER
402
506

FIGURE 2

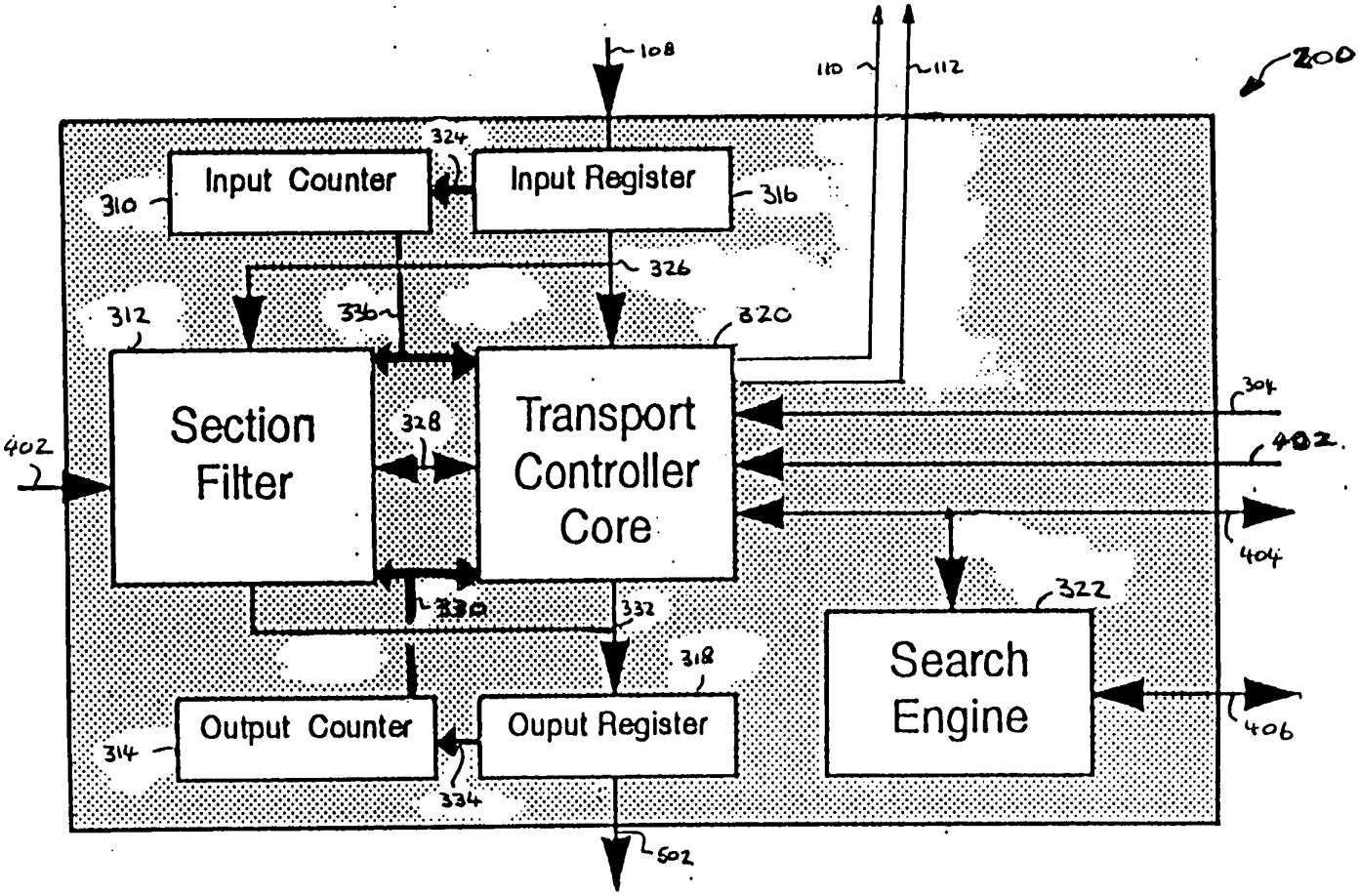
108
110
112
200
324
Input Counter
Input Register
310
316
326
312
336
320
Section Filter
328
Transport Controller Core
402
304
402
404
330
332
322
Search Engine
318
Output Counter
Ouput Register
406
314
334
502

FIGURE 3

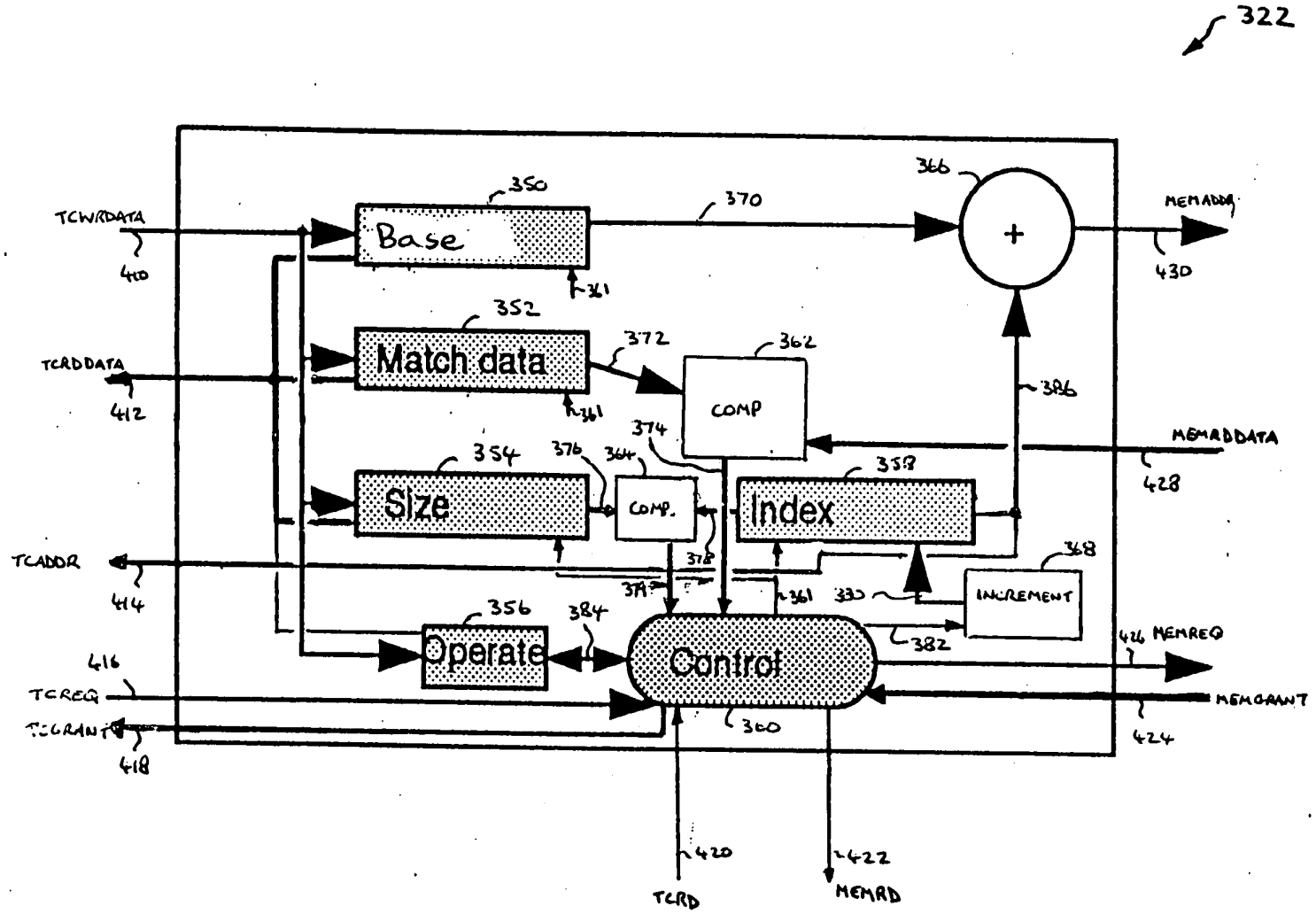
322
Base
350
Match data
352
Size
354
Operate
356
Control
360
Index
358
COMP
362
COMP.
364
INCREMENT
368
366
+
TCWRDATA
410
TCRDDATA
412
TCADDR
414
TCREQ
416
TCGRANT
418
MEMADDR
430
MEMADDATA
428
MEMREQ
426
MEMGRANT
424
TCRD
420
MEMRD
422
370
372
374
376
378
380
382
384
386

FIGURE 4

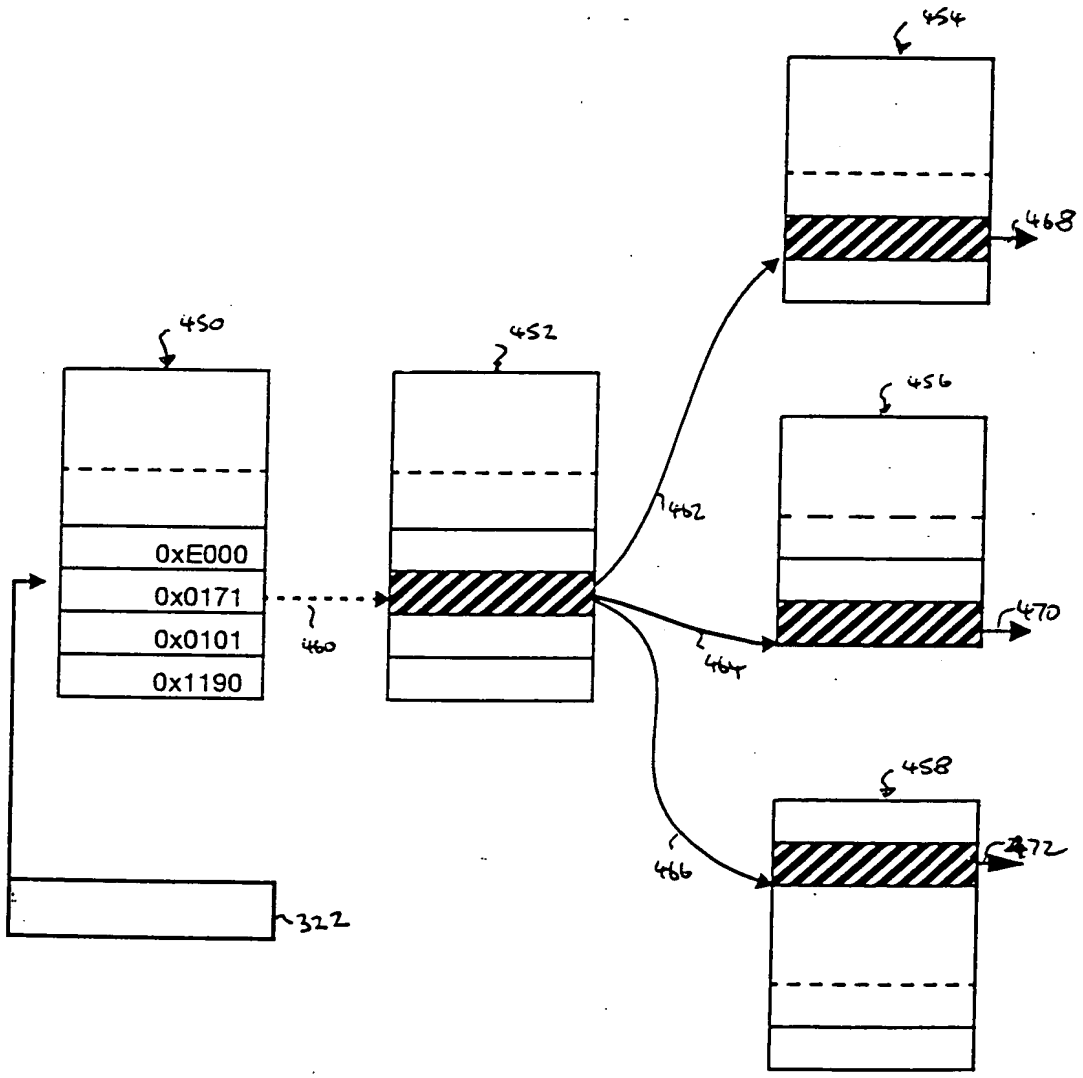
450
452
454
456
458
0xE000
0x0171
0x0101
0x1190
460
462
464
466
468
470
472
322

FIGURE 5

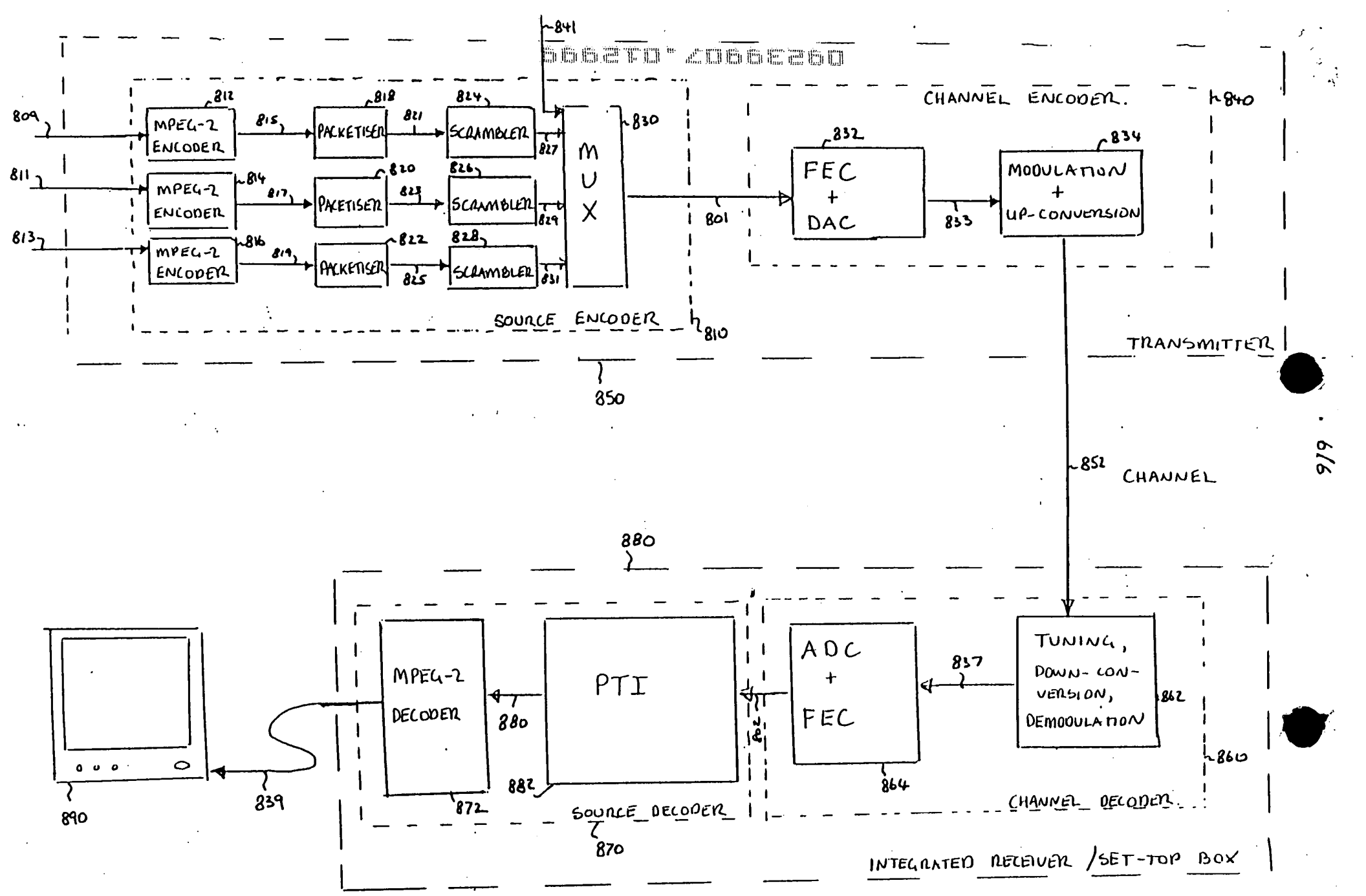
841
809
811
813
812
814
816
MPEG-2 ENCODER
MPEG-2 ENCODER
MPEG-2 ENCODER
815
817
819
PACKETISER
PACETISER
PACKETISER
818
820
822
821
823
825
824
826
828
SCRAMBLER
SCRAMBLER
SCRAMBLER
827
829
831
MUX
830
SOURCE ENCODER
810
850
801
CHANNEL ENCODER
840
FEC + DAC
832
833
MODULATION + UP-CONVERSION
834
TRANSMITTER
852
CHANNEL
880
MPEG-2 DECODER
PTI
880
882
872
SOURCE DECODER
870
ADC + FEC
837
TUNING, DOWN-CONVERSION, DEMODULATION
862
864
860
CHANNEL DECODER
INTEGRATED RECEIVER /SET-TOP BOX
890
839

FIGURE 6